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REMARKS

Reconsideration and allowance are respectfully requested in view of the foregoing

amendments and the following remarks.

Claims 1-18, 20-26, 28-34, and 36-40 are pending. Claims 1, 5-11, 15-18, 20, 21, 23-

26, 28, 29, 31-34, 36, and 37 were amended. Claims 38-40 were added and claims 19, 27,

and 35 were canceled without prejudice or disclaimer.

In the Office Action of September 9, 2004, the Examiner rejected claims 1, 5-11, and

15-20 under 35 U.S.C. 102(b) as allegedly being anticipated by Badler et al., "A

Parameterized Action Representation for Virtual Human Agents" ("Badler"); rejected claims

21, 29, and 37 under 35 U.S.C. 102(b) as allegedly being anticipated by Joshi et al.,

"Disambiguation of Super Parts (or Supertags): Almost Parsing" ("Joshi"); rejected claims 2-

4 and 12-14 under 35 U.S.C. 103(a) as allegedly being unpatentable over Badler in view of

Joshi; and rejected claims 22-28 and 30-36 under 35 U.S.C. 103(a) as allegedly being

unpatentable over Joshi in view of Badler.

Rejection of Claims 1, 5-11, and 15-20:

On page 2 of the Office Action, the Examiner rejected claims 1, 5-11, and 15-20

under 35 U.S.C. 102(b) as allegedly being anticipated by Badler. Applicant submits that

amended claims 1 and 11 obviate the rejection with respect to claims 1, 5-11, 15, 16, 18, and

20. Applicant respectfully traverses the rejection with respect to claims 17 and 19.

Amended independent claim 1 is directed to a method of generating a scene

description from a set of words. The method includes, among other things, depicting a spatial

relation by using at least one spatial relation tag of an associated one or more objects.

Badler is completely silent regarding the use of spatial tags to depict a spatial relation.

Applicant submits that because Badler fails to disclose each and every feature of claim 1,

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claim 1 is not anticipated by <u>Badler</u>. Therefore, Applicant respectfully requests that the rejection of claim 1 be withdrawn.

Claims 5-10 depend from claim 1 and are not anticipated by <u>Badler</u> for at least the reasons provided with respect to claim 1. Therefore, Applicant respectfully requests that the rejection of claims 5-10 be withdrawn.

Amended independent claim 11 is directed to a machine-readable medium having stored thereon a group of instructions. The instructions include, among other things, instructions to modify at least one depictor to resolve at least one conflict between at least some of the depictors. Amended independent claim 11 now includes features similar to those of original claim 19.

With respect to the rejection of original claim 19, the Examiner, on page 5 of the Office Action, asserted that <u>Badler</u> discloses at least one depictor is modified to resolve conflicts between depictors. To support the rejection, the Examiner, on page 5 of the Office Action, stated:

> An agent is controlled by it's own process yet, there are rules that depend on the position of objects used by the waiter, these rules resolve conflicts between Avatars, such as if one is standing or sitting, each position is given a specific rule, see example, page 5, col. 2, paragraph 2.

Page 5, col. 2, paragraph 2 of <u>Badler</u> discloses:

> The waiter agent is autonomous and is controlled by its own agent process. The waiter agent carries a pitcher with some kind of liquid and acts according to the following rules:
>
> •   if an avatar is sitting at the table, and the glass in front of him/her is empty, the waiter will approach the glass and pour the liquid into it from the pitcher:
> or
>
> •   if the pitcher is empty, the waiter will go into the kitchen through the open doorway, refill the pitcher, and come back out: or
>
> •   if nothing needs to be done, the waiter will just stand by the doorway and stay idle.
>
> The waiter agent obtains all its environment state information from the

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> working memory. Based on the environment conditions (state of pitcher or the
> avatar's glass), the agent process for tile waiter adds the corresponding actions
> to its queue.

Thus, Badler discloses that the waiter acts according to a set of rules. The exemplary set of

rules has no conflict. The rules simply state, for example, if A then B, if C then D, where A

and C are conditions and C and D are actions performed by the waiter if the conditions are

satisfied. For example, suppose the rules for the waiter are 1) if an avatar is sitting at the

table and the glass in front of the avatar is empty, refill the pitcher and come back out, and 2)

if nobody asks for anything, stay idle. Then, if the conditions for rule 1 are satisfied, but

nobody asks for anything (rule 2), a conflict would exist because the waiter cannot perform

the actions of staying idle and refilling a pitcher simultaneously. However, Badler is

completely silent regarding conflicts and their resolutions.

For at least the above reason, Applicant submits that amended independent claim 11 is

not anticipated by Badler and respectfully requests that the rejection of claim 11 be

withdrawn.

Claims 12-18 and 20 depend from claim 11 and are not anticipated by Badler for at

least the reasons discussed with respect to claim 11. The rejection of claim 19 is moot due to

the cancellation of that claim. Therefore, Applicants respectfully request that the rejection of

claims 12-20 be withdrawn.

Applicant submits that claim 17 is also patentable over Bader for other reasons.

Claim 17 depends from claim 11 and further recites that at least one of the description

elements is modified to resolve conflicts between at least some of the description elements.

On page 4 of the Office Action, the Examiner asserted that Badler discloses at least

one description element is modified to resolve conflicts between description elements. To

support this assertion, the Examiner stated:

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PAR differentiates between change of location and description and idiomatic
expressions, cultural habits, in a descriptive element (such as OBJECT), page
2, left col. Paragraph 3 and Fig. 1.

Figure 1 of Badler illustrates a syntactic representation of PAR. Page 2, left col.,

paragraph 3 of Badler discloses:

> This rich representational structure also allows our PARs to capture the
> physical or performance attributes of movements and actions. For example, it
> allows differentiating between a simple change of location description such as
> *go to the door*, and a more idiomatic expression such as *go to bed* which
> brings with it a wealth of cultural habits about preparing for a night's rest.
> With the former action, there is just a single move event involving a single
> participant, and the termination is achieved when that participant arrives at the
> door. The latter action involves a series of actions that can be as diverse as
> changing clothes and brushing teeth, and terminates when the participant
> actually lies down on the bed. This requires the embedding of several simple
> actions into a single complex action. In this way, we can use a PAR as a
> common representation to capture verbal and physical descriptions of both
> simple actions, *go to the door*, and complex actions, *go to bed.*

Thus, Badler discloses that a change of location can be distinguished from an idiomatic

expression. However, Applicant submits that distinguishing between a location change and

an idiomatic expression is not equivalent to modifying at least one description element to

resolve conflicts between description elements. In the above example, there is no conflict

between description elements. In fact, Badler is devoid of any disclosure of conflicts

between description elements.

Rejection of Claims 21, 29, and 37:

On page 6 of the Office Action, the Examiner rejected claims 21, 29, and 37 under 35

U.S.C. 102(b) as allegedly being anticipated by Joshi. Applicant respectfully traverses the

rejection.

Amended independent claim 21 is directed to a method of generating a low-level

scene description from a set of words. The method includes, among other things, converting

a structure (representative of semantic relations) into a high-level scene description, wherein

the high-level scene description includes at least one description element.

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On page 6 of the Office Action, the Examiner asserts that the above-mentioned

feature of claim 21 is disclosed in <u>Joshi</u>, at page 2, right col., paragraph 2. Applicant

respectfully disagrees.

First, Applicant notes that <u>Joshi</u> does not have a page 2. However, assuming that the

Examiner meant to refer to the second page of <u>Joshi</u>, which is page 155, <u>Joshi</u>, at page 155,

right col., paragraphs 1 and 2 discloses:

> The process of combining the elementary trees resulting in the parse or
> the sentence is represented by the derivation tree, shown in Figure 2(b). The
> nodes of the derivation tree are the tree names that are anchored by the appro-
> priate lexical item. The composition operation is indicated by the nature of the
> arcs - - dashed line for substitution and bold line for adjunction, while the
> address of the operation is indicated as part of the node label. The derivation
> tree can also be interpreted as a dependency graph with unlabeled arcs
> between words of the sentence as shown in Figure 2(c).
> We will call the elementary structures associated with each lexical
> item as super parts-of-speech (super POS) or supertags.

Applicant submits that the above-cited portion of <u>Joshi</u> has nothing to do with converting a

structure into a high-level scene. In fact, <u>Joshi</u> is completely devoid of such a disclosure.

Because <u>Joshi</u> does not disclose each and every feature of claim 21, Applicant

submits that claim 21 is not anticipated by <u>Joshi</u> and respectfully requests that the rejection of

claim 21 be withdrawn.

Claim 29 is similar to claim 21 and is not anticipated by <u>Joshi</u> for at least reasons

similar to those provided with respect to claim 21. Therefore, Applicant respectfully requests

that the rejection of claim 29 be withdrawn.

Claim 37 is directed to a method of generating a scene description from a set of

words. The method includes, among other things, assigning a set of constraints to each

description element in said set of description elements. Applicant notes that the rejection of

claim 37 (OA at page 7) does not mention this feature. Applicant submits that <u>Joshi</u> does not

disclose or suggest assigning a set of constraints to each description element in said set of

description elements.

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Further, Joshi does not disclose or suggest generating a scene description by solving a

set of constraints for the description elements. The Examiner asserted that Joshi discloses

this feature and cited Joshi at page 3, right col., paragraph 1 as support. Applicant

respectfully disagrees.

Applicant notes that Joshi does not have a page 3 and is completely silent regarding

generating a scene. Apparently, the Examiner mistakenly cited Joshi.

For at least the reasons given above, Applicant submits that Joshi fails to disclose or

suggest each and every feature of claim 37 and therefore, cannot anticipate claim 37.

Applicant respectfully requests that the rejection of claim 37 be withdrawn.

Further claims 21, 29 and 37 recite other features not disclosed or suggested by Joshi.

For example, Joshi does not disclose or suggest modifying at least one depictor to resolve at

least one conflict, as recited in claim 21 and similarly recited in claim 29. Further, Joshi does

not disclose or suggest depicting a spatial relation by using at least one spatial tag of an

associated one or more of objects, as recited in claim 37.

Rejection of Claims 2-4 and 12-14:

On page 8 of the Office Action, the Examiner rejected claims 2-4 and 12-14 under 35

U.S.C. 103(a) as allegedly being unpatentable over Badler in view of Joshi. Applicants

submit that amended independent claims 1 and 11 obviate the rejection.

Claims 2-4 depend from amended independent claim 1, which recites depicting a

spatial relation by using at least one spatial tag of an associated one or more objects. As

previously discussed, Badler fails to disclose or suggest this feature. Joshi also fails to

disclose or suggest this feature either alone or in any combination with Badler. Therefore,

Applicant respectfully requests that the rejection of claims 2-4 be withdrawn.

Claims 12-14 depend from amended independent claim 11, which recites, among

other things, a machine-readable medium having stored thereon instructions to modify at

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least one of the depictors to resolve at least one conflict. For reasons similar to those

provided with respect to claims 2-4, Applicant submits that claims 12-14 are patentable over

Badler and Joshi and respectfully requests that the rejection of claims 12-14 be withdrawn.

Rejection of Claims 22-28 and 30-36:

On page 10 of the Office Action, the Examiner rejected claims 22-28 and 30-36 under

35 U.S.C. 103(a) as allegedly being unpatentable over Joshi in view of Badler. Applicant

traverses the rejection with respect to claims 25, 27, 33, and 35. However, claims 27 and 35

were canceled without prejudice or disclaimer making the rejection of these claims moot.

Applicant submits that amended independent claims 21 and 29 obviate the rejection with

respect to the remaining claims.

Amended claim 21 is directed to a method of generating a low-level scene description

from a set of words. The method includes, among other things, modifying at least one

depictor to resolve at least one conflict (between at least some of the depictors). For reasons

similar to those discussed with respect to the rejection of claim 21, Joshi does not disclose or

suggest such a feature. For reasons similar to those discussed with respect to claim 9, Badler

also fails to disclose or suggest this feature. Therefore, Joshi and Badler do not disclose or

suggest modifying at least one depictor to resolve at least one conflict (between at least some

of the depictors), as recited in claim 21, either separately or in any combination. Applicant,

therefore, respectfully requests that the rejection of claims 22-26 and 28, which depend from

claim 21, be withdrawn.

Amended claim 29 recites features similar to those of claim 21. Therefore, for

reasons similar to those provided with respect to claims 22-26 and 28, Applicant submits that

claims 30-34 and 36, which depend from claim 29 are patentable over Joshi and Badler and

respectfully request that the rejection of claims 20-24 and 36 be withdrawn.

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New Claims 38-40:

New claims 38-40 depend from claims 11, 21, and 29, respectively, and are

patentable for at least the reasons provided with respect to claims 11, 21, and 29, as well as

for reciting other features.

CONCLUSION

Having addressed all rejections, Applicant respectfully submits that the subject

application is in condition for allowance and a Notice to that effect is earnestly solicited.

Respectfully submitted,

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